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LECTURES

ON

OBSTETRIC NURSING.

DELIVERED AT THE TRAINING SCHOOL FOR NURSES
OF THE PHILADELPHIA HOSPITAL.

BY

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PREFACE.

These lectures were recently delivered to the pupils of the Philadelphia Hospital Training School for Nurses. It was my intention to have them appear in a medical journal, if they were published; but a strong desire that they should be presented in a more permanent form having been expressed, has led me to change my first purpose.

The lectures are published as they were given, only a few eliminations having been made; but as some important topics were omitted, or only partially presented, these are considered, in alphabetical order, in an appendix.

My hope is that this little work may prove in some degree interesting, instructive and useful to those engaged in the study of obstetric nursing, and thus through them do good to all unto whom they may be called to minister.

July, 1889.

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LECTURES

ON

OBSTETRIC NURSING.

LECTURE FIRST.

The duty of delivering two lectures upon obstetric nursing to the pupils of the Training School for Nurses in the Philadelphia Hospital has been assigned me. This duty was cheerfully accepted, hoping that some useful things might be said which would help you to help those who suffer, and desiring, too, to magnify your office, endeavoring to inspire you with hearty love for it, if such inspiration be needed, and earnest zeal in the discharge of its functions.

How this instruction can be best given may be a question. A code of laws might be formulated; but that, it seems to me, would be as lifeless as the bleached bones of a skeleton, and as little likely to awaken interest in those who listened to its enunciation as the multiplication table does in the child

first compelled to commit it to memory; still less would such a code evoke enthusiasm and invite consecration. Educated minds weary of formulæ, or even may rebel against dreary dogmatisms, arbitrary rules and absolute imperatives. Shall and shall not sound like an echo of Sinaitic sovereignty and solemnity. If a nurse were only an automaton, a mere machine with a motive power instead of an individual under the power of motives, a machine doing a definite amount of work in a fixed time and way, then positive laws, precise rules and peremptory commands might be given. Huxley once said, "I protest that if some great Power would agree to make me always think what is true and do what is right, on condition of being turned into a sort of clock and wound up every morning before I got out of bed, I should instantly close with the offer." Nevertheless, a human being, and especially an educated human being, is more marvelous than the Strasburg clock or any other ingenious product of human thought and skillful mechanism. Such person has intelligence, reason, conscience, affection, will, and the consciousness of responsibility; she cannot be wound up and made to go right by fixed laws and invariable rules, no matter how long a time is spent in the effort. The true nurse is not a manufacture, but an independent, growing personality; intelligent brain,

kindly nature, sympathetic heart and skilled hand must be united. She is a living soul as well as an active body, and the two must blend their forces to make her life a blessed harmony, a voice of praise and a power of doing the greatest good.

While of old it was said that the law was a schoolmaster, compelling to higher knowledge and holier help, my *rôle* to-day is neither to give nor to enforce laws, but rather to endeavor in plain speech to present principles out of which the intelligent mind will form rules of action, and make general description of the conduct of the obstetric nurse. Nevertheless, before entering this defined way, it has seemed to me that incidental light may be obtained by first considering the signification of the word nurse, and presenting the means that have been employed, more especially in this city, for instruction in obstetric nursing. Moreover, there will be added to these preliminary remarks certain reasons for holding that the office of obstetric nurse is invested with especial dignity and importance, thereby hoping to instill in those who devote themselves to obstetric nursing greater love and higher honor for their work. If any flowers are strewn upon the way we walk, remember the motive is to render that way more attractive, and remember, too, that they are not artificial, but those which nature and history give.

Meaning of the Word Nurse.—The word nurse, from the Latin *nutrix*, like that word, first meant a mother who supplied another's infant with the milk designed for her own—in other words, she was a wet-nurse. Indeed, so essential is this idea in the Latin word that its plural, *nutrices*, was applied to the breasts themselves. About the middle of the sixteenth century Tansillo, an Italian, wrote a poem entitled *La Balia*, that is, The Nurse; and under this name it was translated by William Roscoe and published in London in 1798. This work was an argument against the employment of *la balia*, or the wet-nurse, and a strong plea for maternal nursing. The following passage illustrates the burden of the poem:—

> "O crime! with herbs and drugs of essence high
> The sacred fountains of the breast to dry!
> Pour back on nature's self the balmy tide
> Which nature's God for infancy supplied!"

The word nurse occurs in Shakespeare between seventy and eighty times; the most notable instance probably is in "Romeo and Juliet," where the nurse of Juliet was originally her wet-nurse, and continued with her from infancy. It may be of interest, as showing an example of prolonged lactation, to state that Juliet was not weaned until she was three years old. For those who delight in the *post hoc, ergo propter hoc* method of reasoning—the number

of such logical imbeciles is by no means small—there is a strong argument for early weaning in the case of girl babies, or at least against three years' nursing, in the sad fate which befell Juliet.

The nurse meets us in many Greek plays, and in most the probability is she had been the wet-nurse, and was a permanent member of the household; certainly this is the fact in one of the plays of Æschylus, where the nurse of the matricide Orestes is introduced. In the "Trachiniæ" of Sophocles the nurse occupies an important place, and her sad final words are too often verified in human lives: "Such is the state of circumstances here, so that if any one count on two days or more, he is foolish; for there is no morrow before he pass without misfortune the present day." One of the noblest characters in the "Odyssey" is the nurse, the gray-haired Euryclea; she has been faithful in all the long years to that model of wifely fidelity and womanly love, Penelope, and she first recognizes "the much enduring, much experienced man," Ulysses, returned from his protracted and perilous wandering. She had been his wet-nurse, as these words addressed her by him plainly show:—

"Thy milky founts my infant lips have drained."

The word *nutrix* was also used, as is our word nurse, to designate one who supplied food to the

feeble or sick. And undoubtedly this is one of the most important duties of the nurse. A great Dublin physician, many years dead, thought that the highest praise which could be given him after death would be in these words, "He fed fevers." Such eulogy pointed to the fact that chiefly by his teaching and practice those suffering with low forms of fever, once so prevalent in Ireland, were given a more liberal diet. There is a homely expression you may hear in some parts of our country, to signify that a husband furnishes an ample supply for the wants of a household, especially those relating to food, and it is, "He is a good provider." A good nurse will be a good provider for the sick, and it may be regarded as greatly in her praise that she secures for those under her professional care suitable and sufficient food. But this is only one of her many duties.

Her title has by use come to mean more than, or different from, the supply of natural or of artificial nutriment. She is one who takes care of the sick, the infirm, and of the convalescent. The French word *garde—garde malade* and *garde d'accouchées*—is a better word to indicate the duties of a nurse than that word itself; indeed, it might be wisely adopted, changing the orthography so as to have the English guard, if that were not so suggestive of police power or of military control.

The poets have employed the word nurse in a figurative sense, still, however, retaining the idea of supporting, sustaining, supplying with food, or maintaining. Thus Shakespeare calls Rome "the nurse of judgment." Chaucer, in one of the "Canterbury Tales," says that sleep is the "norrice of digestion"; in old French nurse was "norrice" or "nourrice."

Milton has said:

> "And wisdom's self
> Oft seeks to sweet retired solitude,
> Where with her best nurse, Contemplation," etc.

Sir Walter Scott's lines are familiar to most:

> "O Caledonia! stern and wild,
> Meet nurse for a poetic child!"

Robert Burns in "Tam O'Shanter" uses thus the word nursing:

> "Where sits our sulky, sullen dame,
> Gathering her brows like gathered storm,
> Nursing her wrath to keep it warm."

In the following passage from Dante we have also a figurative allusion to nurse:

> "But ye are sick,
> And in your tetchy wantonness as blind
> As is the bantling, that of hunger dies,
> And drives away the nurse."

The idea of supporting, sustaining, developing, maintaining, inheres in the words nurse, nursing.

The obstetric nurse has, it is true, to provide with suitable nourishment the puerperal woman; but she must do much more, protecting her from all injurious physical as well as moral influences, caring for her by night and by day until her convalescence is complete. The lying-in woman is not, in the great majority of cases, sick, but only exhausted by the suffering and struggle of labor, as well as often weakened by the demands which pregnancy has made upon her vital power; in a few weeks she passes through important physiological changes scarcely less marvellous than those belonging to gestation itself; though not sick, she is in-valid, and needs to be made valid; she is like a dismantled fortress, broken-down defences permitting ready entrance of foes to health and life, and therefore needs to be carefully, constantly, conscientiously guarded until those defences are restored, and her recovery accomplished.

Training Schools for Obstetric Nurses.—It is fortunate for women who bear children that in recent years many trained obstetric nurses are supplied, and are gradually becoming generally employed. It is not long since such nurses were very few, but now there are many to be found, especially in our large cities, though taking the country over they are far from being in the majority. Time was, and that not very long since, when, as a

rule, she who took charge of women in childbed did not enter upon her work until she was driven to it by pecuniary misfortune; she was a widow, or worse, had a worthless husband, a drunkard, for example, and her children cried for bread, so that she sought it by nursing. She "went out nursing," as the expression was, rather than "take in" sewing or boarders—possibly the latter might in some cases have been taken in had she made the attempt. She preferred this occupation even to canvassing for a subscription book, gorgeous with gilt edges and lettering, rich in binding and cheap illustrations, but in literary character in the last stage of marasmus. Some of these enforced recruits of the great army of nurses had been well educated, possibly brought up in wealth and luxury, and turned to their new duties broken in spirit if not enfeebled in body; frequently they were in middle life, or, this period passed, they were descending the last declivity. Occasionally the work was chosen, not from necessity, but because they who engaged in it wished to be usefully employed, or desired to be independent of the kindness of kindred or the generosity of friends. Thus, from the ranks of the unmarried a few became obstetric nurses. In this connection it is worthy of being stated that not only in Pagan mythology was a virgin the goddess especially presiding over childbirth, Diana, or Ar-

temis, but that also, in the early Christian ages, a virgin was invoked by those who endured the martyrdom of maternity. This saint was Margaret; she was a very beautiful maiden of Antioch, a Christian, who, rejecting the marriage offer of a powerful and profligate heathen prince, suffered martyrdom and was canonized.

Let me not say an unkind word of these women who, without any training, without experience, chose obstetric nursing as a mission, accepted it as a duty, or were compelled to engage in it to earn their daily bread, to keep the wolf from the door, to provide things honest for those dependent upon them. I know too well what excellent nurses many of them were, nay, how excellent many of them are. Kind-hearted and quick-witted, obedient to the physician's directions, and learning by experience, they were faithful and successful. When a doctor recognizes a good nurse he is satisfied, and does not ask how her knowledge was obtained. To make such inquiry, quoting from one of Moliére's plays, "is just as if a man were to taste a capital sauce, and wished to know whether it was good according to the recipe in a cookery-book." I will go still farther, saying that many a time I have met with self-educated nurses who were wiser, more faithful, more intelligent, so far as the practical duties of their calling were concerned, than a

trained nurse who had become a mere automaton, blindly following a doctor's directions as she heard and read them without ever stopping to think, to recall and to re-read those words, until her patient was being swiftly borne to inevitable death as the consequence of her mis-hearing and mis-reading. It is the individual rather than her training that often determines the value of a nurse. "With what do you mix your paints?" said a pert questioner to the great painter Opie; and the reply was, "With brains, sir." Those who would succeed in their work as nurses need brains—above all, that cerebral manifestation known as common sense, so termed, it may be, because it is sometimes, at least, found so uncommon. One hears every once in a while in these days a denunciation of the expression "born nurse" as a gross heresy. So it is if we thereby mean birth is everything, training nothing; but if we mean that some women, in consequence of original endowments and aptitudes, make the best nurses, while training, no matter how thorough and long-continued, will not make good nurses out of others, there is truth in the expression. Blood tells in horses, in men and in women. A colt, no matter if sprung from the best racing ancestry, does not win the Derby without having been well trained for the contest; and another, if derived from inferior stock, no matter how much

training may be given, never attains a better gait than that required for a city funeral procession.

But to return from this digression; now, instead of those who are enfeebled by age, or victims of pecuniary misfortune or of disappointed hopes, we see the brave and young, in the full vigor of life and generous ardor of hope, cheerfully choosing the employment of a nurse, qualifying themselves by suitable theoretical and practical studies, and then entering upon their work, not as a compulsory, tiresome and exacting trade, but as a loved and honored profession. This noble army is a testimony to the higher development of obstetrics, and its faithful members have already been important factors in lessening alike the morbidity and mortality of childbed.

Dr. J. Wallace Anderson, in his admirable lectures upon Medical Nursing, thus refers to the "real beginning of the systematic training of nurses:" "It dates from 1836, when Theodore Fliedner, the pastor of a small Protestant congregation at Kaiserswerth on the Rhine, established in that little German village what he called the Deaconess Institution. There, under the superintendence of himself and his wife, a training school for female nurses was begun. It was carried on from the first in a markedly devotional spirit, and was based on the principle of the Deaconess Institutions of the early

Church. Fliedner's institution was therefore quite a religious community, but with no vows, as the founder always said, the only bond of union being the Word of God. It still flourishes, along with many others on the Continent which have followed in its path, and has been the training school of many a leader of the work in our own country. Pastor Fliedner died in 1864. I think there can be no doubt he is entitled to be considered the founder of modern nursing."

Let us not, however, think that the training of obstetric nurses is altogether a thing of to-day. For example, a hundred years ago in the great Obstetric Hospital of Dublin the training of midwives, or monthly nurses, began; this training occupied in the case of each pupil six months. These women, quoting the words of the late Dr. McClintock, are thoroughly taught the mode of conducting ordinary labors and the nursing required by the mother and child during the puerperal period. "The King and Queen's College of Physicians in Ireland have taken the lead in granting a diploma to women of this class who pass an examination in midwifery, not including operations, and nurse-tending." I think that the Dublin plan is essentially right; that is, the nurse's education ought to be such that she can safely conduct an ordinary case of labor; not that she should be a

midwife, but have such familiarity with a midwife's duties that she will be properly prepared to meet common emergencies, which are sure to come now and then in her experience as an obstetric nurse.

In the year 1832* the late Dr. Joseph Warrington of this city began training obstetric nurses; the time required for this instruction was one year. In all there have been taught in the institution founded by him, and which is still carrying on its beneficent work, between 1500 and 2000 nurses.

The Training School for Nurses at the Woman's Hospital† was begun in 1863, but systematic teaching was not established until 1872. The course of instruction lasts two years. The School has had one hundred and fifty graduates, and now has forty-two pupils.

Even in Philadelphia, where the training of obstetric nurses, as we have seen, was begun so long ago, I think there is a large majority of nurses who have had no hospital experience, and who have never been pupils in a training school. From the Directory for Nurses in connection with the College of Physicians I find that there are among the registered nurses 257 who have graduated at a training school and 274 who are non-graduates. It

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* I am indebted to Dr. Ellwood Wilson for this information.

† Dr. Anna Broomall has kindly given me this information.

is reasonable to suppose that in the entire number of non-registered nurses the proportion of those who have not graduated is still greater.

I need not tell you that the time occupied in obstetric work by nurses in this hospital is three months. I wish that those who are to become exclusively obstetric nurses were given at least six months in such work, and that they were taught many things they are not, for example, obstetric auscultation and palpation, and also how to conduct an ordinary case of labor.

Special Responsibility of the Obstetric Nurse.—It is generally admitted that the obstetrician has a greater responsibility than that of the physician or the surgeon, because he has the care of two lives. For the same reason the obstetric nurse has a heavier burden resting upon her than the medical or surgical nurse has. Furthermore, the lives that she cares for are peculiarly sacred, the one by the consecration of suffering, and the other by its utterly helpless condition, though at the beginning of independent existence. Labor is a drama which begins, continues and ends with pain; it is the highest function of the human body, and yet the only function invariably attended with suffering, the suffering in some instances the severest known to the race. Instinctively the nurse will desire to comfort the sufferer, giving relief if possible, and

averting danger during and after the struggle. And when the great agony ends, how the babe's first cry—possibly thrilling the mother's heart with new joy, or arousing anxious forebodings—appeals for human sympathy and help! Lucretius has thus spoken of the newborn child: "Then the infant, like a mariner tossed by raging seas upon the shore, destitute at his very birth of all supports of life, for the time when nature first presenting him to the day, fills the air with doleful cries, as foreseeing life's miseries." *

More frequent than the ticking of the clock is the birth of a human being—seventy children born every minute. In the commonness and frequency of the event we may forget its sacredness and importance. Familiar as is the sight of mother and babe to many, no one should fail to think of the beauty and mystery that therein dwell. With truthful eloquence Charles Kingsley said "that physicians and the wise men who look into the laws of

* This passage suggests the following from Herodotus as to the conduct of the Thracians at birth and at burial: "The relations, seating themselves around one that is newly born, bewail him, deploring the many evils he must fulfill, since he has been born; enumerating the various sufferings incident to mankind; but one that dies they bury in the earth, making merry and rejoicing, recounting the many evils from which he has been released. He is now in perfect bliss."

nature, of flesh and blood, say that the mystery is past their finding out; that if they could find the whole meaning of those two words, mother and child, they could get the key to the deepest wonders in the world; but they cannot. And philosophers, who look into the laws of soul and spirit, say the same. The wiser men are, the more they find in the soul of every newborn babe, and its kindred to its mother, wonders and puzzles past man's understanding."

While our vision, then, may not penetrate this mystery, those who are brought oftenest and nearest to it ought to acknowledge its power. A clergyman once observing that famous work of art, Murillo's picture of the Annunciation, said that it revealed the consecration of maternity, adding these words: "What Murillo meant to say I do not know, but what he has said is that through Mary, the mother of our blessed Lord, there came a blessing upon all babes, and infant faces are glad because she was the mother of our Redeemer." He also quotes the passage from Timothy, adopting the translation in the Revised Version, that woman shall be saved, not in, but by childbearing. Some perish in giving birth, but by this function blessing may come.

Some years ago an eminent London surgeon, now dead, wrote a little volume entitled "The Mystery of Pain," and the burden of the book is

that pain may be sacrifice for love's sake, leads to a higher development of character, and may fulfill an important purpose in the world's spiritual economy. The mother's care of her child is exacting and wearisome, and requires the abandonment of many a pleasure—in a word, it is sacrifice, but sacrifice on the altar of love, and may lead to a higher life; and thus pain exalts and purifies, and crowns with heavenly grace and beauty.

I trust you will not think the time wasted in this endeavor to show the responsibility and dignity of your calling, and to impress upon your minds that lives whose chief end is the good of others are the noblest, and that even sacrifice is far better than selfish pleasure, and gives new beauty to character, new strength to virtue. Unless we love our fellow-beings, earnestly desire to lighten their sorrows, and lift from prostrate forms the cross of suffering, neither as nurses nor as doctors can we attain the best ideal of life. If we live simply and solely to sell our knowledge and skill at the highest price to sufferers, having no greater ambition than to make all the money we can, and in this spirit occupy places in the temple consecrated to healing the sick, we are no better than the money-changers and the dove-dealers in Jerusalem's temple, who fled its sacred walls affrighted at the stern rebuke of the Divine Master.

The following passage from Ruskin, relating to doctors and nurses, may be appropriately quoted in this connection: "They like fees, no doubt ought to like them; yet, if they are brave and well-educated, the entire object of their life is not fees. They, on the whole, desire to cure the sick; and if they are good doctors or nurses, and the choice were fairly put to them, would rather cure their patient and lose their fee than kill him and get it. Their work is first, their fee second. But there is a vast class who are ill-educated, cowardly, and more or less stupid, and with these the fee is first and the work second. If your work is first and your fee second, work is your master, and the Lord of work, who is God. But if your fee is first and your work second, fee is your master, and the lord of fees, who is the 'least erected fiend that fell.'"

The nurse's life is a private one, her work concealed from public observation, and her highest reward not such as most men and women regard the best. But nature's richest beauty and choicest blessings are often produced in silence and secrecy. The wild violet is hidden by the wayside or in the solitudes of the forest, and the purest, coolest fountains of water have their source in the deep darkness of the hills. And so it is that the human life richest in beauty and in blessing is rarely that which is most freely exposed to the public gaze,

and is crowned with the world's glory and rewarded with the world's gold.

Qualifications of the Obstetric Nurse.—Before speaking of the special fitness and requirements and duties of the obstetric nurse, allow me to quote from Dionis, a famous French accoucheur, whose work upon obstetrics was published at Paris in 1718, some advice that he gives in a chapter upon the Choice of a *Garde d'Accouchées*. Some things will seem to you quite absurd, but most that he says is as valuable to-day as when it was first written.

Dionis states that while the occupation of a *garde* does not seem very difficult, nevertheless, she needs some skill to do her work well. A young person ought not to engage in it, for she cannot inspire the necessary confidence. The *garde* should be in the vigor of life, and at least thirty years of age, so that she knows something of the world; she ought not to be so old that she cannot endure the fatigue of her occupation, nor watch the *accouchée* in the diseases which may occur. Her appearance ought to be pleasing, and she ought to have judgment and politeness, so that she can agreeably entertain the *accouchée* when alone with her, and do the honors in the visits that the latter receives, of which she is the mistress of ceremonies. She must not be a tattler, telling all that happens in the family, especially anything that may be

injurious to her patient. She must be faithful in the recital given the accoucheur or the physician of all that has occurred since his last visit, and in carrying out his directions; for there are some *gardes* who have such a high opinion of themselves that they take the liberty of treating *accouchées* in their own way; and this is a great mistake, for many *accouchées* suffer, and are the victims of the nurse's ignorance.

She must be temperate in eating and drinking, and above all avoid wine, because, sleeping too much, she will fail in the duty at regular hours she owes the *accouchée*.

She ought to visit the pregnant woman some days before her labor, to ascertain if all the linens necessary for mother and child are provided, have everything ready for the travail, and be at hand to do whatever may be required,

She must wash the child as soon as it is born, and dress it properly so that the clothing gives it no discomfort. She should stay awake with the child during the night until it has been baptized, lest some accident may happen to it before it has received the sacrament; she must exercise the greatest watchfulness until it is placed in the hands of the wet-nurse.

Her chief duties are to give the *accouchée* daily an enema made with a decoction of emollient herbs, to bathe the external parts, to remove the napkins

as soon as they are soiled, and she must not let the bandages be too tight. She is to give food at regular hours, but must not let her patient talk too much, nor should she urge her to eat a great deal. She will not permit her to leave her bed until nine days, and, if possible, prevent her receiving visits until later; she ought to prevent ladies who have perfumed powder, or who exhale any odor, from approaching the bed of the patient. When the *accouchée* is able to go out, the *garde* accompanies her in her first visit, which is made to the church to render thanks to God.

So much for the *garde d'accouchées* in the beginning of the last century. What ought she to be to-day, and what are her duties?

It may be at once assumed that the obstetric nurse needs the same physical, mental and moral powers which are necessary for the nurse in general, and at first has the same training. Specialism in nursing, like specialism in medicine, has one foundation. The medical specialist lays the basis of his work in a general knowledge of medicine, and this knowledge ought to be practical as well as theoretical; so the specialist in nursing must first be thoroughly grounded in the general principles and practice of nursing.

Remembering that her duties begin with woman in the latter part of pregnancy, a condition which

exalts nervous sensibility, and which often causes in its subject great anxiety and grave apprehension, she ought to be, above all nurses, gifted with tact. So, too, this tact is constantly required in the lying-in room. Tact, which, etymologically, is simply touch, implies a delicacy, a quickness and accuracy of recognition of special conditions, as perfect as the record of atmospheric changes made by the barometer, of heat changes by the thermometer, of electric currents given by the galvanometer. When we were children did we not believe that cats could see in the dark? When we were older we learned that the cat found its way so certainly, so quickly and so safely in the thickest darkness not by sight but by touch; that the projecting hairs at the side of her face, her "whiskers," insensitive themselves, were at their origin in contact with sensitive nerves, and thus she was instantly told of contact with objects, and surely guided.

But tact is not merely discovery, for after discovery comes direction, avoidance, obviating. The wise nurse will seek the patient's wishes and desires, and let them give guidance whenever they are consistent with true interests; she accomplishes essential ends by gentleness, by kindly and opportune counsel, not by ill-timed and coarse compulsion; she seeks to lead rather than to drive, and while having the serpent's wisdom, likewise keeps the

harmlessness of the dove, so that no offence is given. Learning the patient's sympathies and antipathies, she endeavors to have the former respected, and averts excitement of the latter. She may not, she is not able, to scatter flowers upon the *via dolorosa* which every woman in the function of childbirth must walk, but her tact will teach her how to remove many a sharp thorn and bruising pebble which are in that way.

May I add that the obstetric nurse should have a special fondness for her work, chosen voluntarily, pursued lovingly and hopefully. Coleridge has well said:

> "Work without hope draws nectar in a sieve,
> And hope without an object cannot live."

Among the simplest and most beautiful utterances of Richter was, "I love God, and little children." And if the obstetric nurse can make the same avowal, she is in no wise less fitted for her profession.

Reasons for Giving Up an Engagement.—The nurse is usually engaged some months before the labor is expected to occur. But if at the time her services are needed she should be in attendance upon a case of puerperal fever the engagement must be given up. So, too, referring to those who combine other with monthly nursing, they ought not to go to a woman in or after labor if they have been

nursing cases of scarlet fever, or of erysipelas, or of diphtheria, or patients having purulent discharges and suppurating wounds; the nurse coming, for example, from attendance upon a woman with cancer of the womb has more than once brought a fatal poison to the puerpera. Nevertheless, my faith in perfect cleanliness and antiseptics is so great that I believe the nurse or doctor may be completely disinfected in a little time, without waiting for the weeks required for mechanical disinfection. Thus, an entire bath, during the taking of which a flesh-brush and soap are diligently used, and this followed by an antiseptic bath, *e.g.*, one in which a one per cent. solution of creolin, or 1 to 10,000 of corrosive sublimate, is used, and then fresh clothing put on, will, I believe, render a person perfectly free from the possibility, or at least the probability, of conveying, even from a case of septicæmia, poison to the puerperal woman. Nevertheless, few physicians would consent to the employment of the nurse who had even recently had charge of any of the diseases mentioned; and the nurse may well conform her action to the maxim of Zoroaster, so useful in questions of casuistry relating to many of life's emergencies, "In doubt whether an action is right or wrong, abstain."

Another rule is here to be given: the clothing worn, the catheter, the thermometer, or any other

instrument used while in attendance upon any of these diseases, must be disinfected before going to another patient, and especially to a woman in labor, or who has been recently delivered.

After these remarks made in regard to the precautions the nurse should use lest she transmit disease, let us consider the duties of the obstetric nurse. These may be conveniently divided into three classes. Duties before, during, and after labor.

The Duties Before Labor.—The engagement of the obstetric nurse is frequently by the advice of the physician, often, too, by that of friends, and sometimes accidental, or emergency occurring the first nurse that can be had is employed—a sort of Hobson's choice. Now, it is important that the nurse should, upon visiting, attract and not repel her charge, that she should commend herself, not in direct words, but in general appearance and conduct; she ought to inspire confidence, and this she can best do when she has been best educated. Little things oftentimes tell the story of success or failure, and the following incident may have its moral. A nurse once came to me with very good recommendations; she was a stranger, and needed work, and I procured her an engagement. But when she called upon the prospective patient she was not neatly dressed, and had just eaten heartily of raw onions, and the engagement was cancelled. Poverty can

rarely be the excuse of the nurse for want of proper personal apparel. One of the old English poets has said,

> "No spring or summer's beauty hath such grace
> As I have seen in one autumnal face."

And thus, no matter how deficient one may be in nature's frail dower, fleeting, fading beauty, there is a beauty of soul that illumines plain features with growing grace, and gives them permanent attraction and power. Pascal said if Cleopatra's nose had been half an inch shorter the condition of the entire world would have been changed; but it may be doubted whether the length or shortness of the human nose determines success, or decides the acceptance or rejection of a nurse.

I wish it were possible for me to say that ability was always recognized and merit met its reward; that brazen-faced assurance and impudent and lying self-assertion were always promptly rejected like spurious coin. Yet I believe, in the long run, truth and virtue will triumph, and all shams and frauds, blustering braggarts and self-seekers be cast aside. The empire of physical power, of ignorance and of error must become less as the reign of intellectual, moral and spiritual forces takes rightful possession; the kingdom that is coming is not violence and coarse brutal power, but it is peace and love, gentle-

ness and kindness, sympathy and succor, carrying hope and help to the suffering, and making sunshine in all shady places.

Let the nurse possess knowledge, and the power of readily applying it, let her be neat in dress, kind and polite in manner, honestly desiring the good of her charge and the honor of her profession, and she cannot fail, no matter what her deficiency in so-called personal attractions, in winning the confidence and esteem, if not the love, of all to whom she is nearest in the hour of woman's severest agony and sorest trial.

Visiting the prospective mother, frequently, some weeks, or even a few months before labor, the nurse may give her much useful instruction and advice. If the latter is now pregnant for the first time, she will probably shrink from candid communication with her physician and frankly making known to him her various discomforts and sufferings, but will freely tell the nurse. This nurse ought to be so instructed in the hygiene of pregnancy that she can give useful advice. As matter of incidental interest it may be stated that the first reference to such hygiene is found in the Bible, and consisted in abstinence from wine, which was enjoined upon the mother of Samson. The nurse can wisely counsel her charge as to suitable clothing, exercise, food and rest, if such counsel is needed.

She will know that certain symptoms require the attendance of the physician. Thus, if the woman has bloody discharge from the womb, and pains, miscarriage or premature labor is threatened, the doctor must be at once called. Again, if there be notable swelling of the upper and lower limbs, and of the face, it may result from a watery condition with excess of blood—hydræmia and plethora, as technically known—and the greatest and promptest comfort comes from a hot bath, a glass of hot water being taken during the bath, so that free sweating is caused. If the swelling referred to be associated with great paleness of the face, with disordered vision, possibly with severe pain, usually in the front part of the head, or great suffering at "the pit of the stomach," the patient has almost certainly albuminuria, and is in imminent danger of convulsions. In either case, and especially in the latter, the physician ought to be immediately consulted.

The nurse, if the physician has not attended to this, and if the prospective mother is a primigravida, ought to know that the nipples are suitably developed, and that proper means are used to prevent, where possible, their becoming injured by nursing, for fissured, excoriated or ulcerated nipples are the source of great distress, may require the mother to abandon furnishing her infant with the food that

nature has prepared for it, or cause inflammation and abscess of the breast.

While in some instances disease of the nipple cannot be averted, in most it can. In the former case the difficulty may arise from bad conformation of the organ, great delicacy of the skin, scanty supply of milk, so that the child in its eager and prolonged sucking subjects the nipple to special violence, and in other cases the injury may be caused by the child having what has been called "a murderous mouth."

So far as the hygiene of the nipples in pregnancy is concerned, first, these organs must not be pressed upon by the clothing, but ample room given them to expand and develop under the stimulus of pregnancy. They must not be kept too warm; indeed, some advise that each day they should be for a time uncovered, and thus exposed to the open air. Next, they must be kept clean, gently washed every day with a little soap and water, for otherwise the mammary secretion which occurs in pregnancy will dry upon their summits, forming crusts beneath which the skin becomes tender, if not raw. If they are sunken and retracted, in some cases gently drawing out each nipple with the thumb and finger for a few minutes, twice at least every day, may give them suitable shape. The means most commonly in use to prevent injuries of the

nipple is the daily application of some astringent and alcoholic preparation. It is many years since, both on theoretical grounds and from observation, this treatment seemed to me wrong. It certainly does not appear rational that when nature has provided a part with such a vast number of fat-glands as she has the nipple, we should by astringents endeavor to lessen that secretion, and by alcohol dissolve that which is furnished. Further, nature meant the skin of the nipple to be soft and pliable, not harsh and stiff, as astringent applications tend to make it. No, I very much prefer to the usual plan of treatment the bathing that has been mentioned, possibly followed by the employment of some cologne and water, or tincture of arnica and water, but in all cases the application once a day of a small quantity of cocoa butter.

The nurse may be consulted as to the room to be occupied during confinement. She will select that one which is best ventilated, and which will be the most quiet, and is least exposed to the noise of the street or of the house; the air of the room ought to be free from possible poisoning by sewer gas, and therefore remote from the water-closet, and not have in it a standing wash-basin in use. She may see that the bed can be placed in such a situation that it will be free from draughts, and can be accessible on either side. The room should be

thoroughly cleaned, all accumulation of old clothes in closets or hanging on the walls removed, and the articles of furniture only those that are really necessary. The bedstead might well be washed, and all the bedding perfectly clean, and free from any possible contamination by disease-germs.

Many women suffer more or less from despondency in the last weeks of pregnancy; and when I think of the pains and the perils which belong to childbirth I often wonder that this despondency is not more general and more profound. But those perils are in almost all cases only shadows, not realities, and in the exceptional instances in which they do come, professional skill can generally avert them, while the physical suffering may in almost every case be mitigated so as to be quite endurable, by the judicious use of an anæsthetic. The nurse can from her own observation speak words of encouragement and hope, and by such kindly and wise utterances do much to dissipate the dark cloud of gloom, almost deepening at times into black despair, and be an inspiration of faith, hope and patience to those who are cast down.

Expression of Opinions as to Doctors.—Questions as to the merits, absolute or relative, of different doctors are likely at one time or another to be presented the nurse. She may, probably will, have her preferences and deferences, her attractions

and aversions, her likes and dislikes, though the latter may have no better foundation in reason than is indicated in the familiar lines as to "Doctor Fell." She must beware, however, of uttering a single word that will weaken the faith of her charge in the chosen medical attendant, and must never become a partisan, advising ladies to employ this or that physician. It is possible some doctors have sought to obtain practice by employing the tongues of nurses, these nurses in turn being recommended by the doctors, and thus a concealed though not silent partnership existing between them. But this is a poor way for either doctor or nurse, and sooner or later brings both to grief unless they have superior abilities.

The nurse must be careful not by word or act to condemn, or seem to condemn or censure a physician; here, if anywhere, silence is golden. I have seen so much of the fallibility of human judgment, and especially of hastily formed opinions, and knowing how liable we are to misunderstand human character and misinterpret human action, it seems to me one has excellent reasons for abstaining from great positiveness of conclusion and great frankness of speech. The nurse is just as fallible as any other person of like endowments, education, age and environments; the very favorable opinion she has of one doctor, and its opposite

of another, may be simply the results of blind partiality and of equally blind prejudice, and it is possible that a longer experience and a larger knowledge might lead her to a complete reversal of those opinions.

Criticisms of Other Nurses.—The nurse, too, will be wise who abstains from any criticism of other nurses; an ascent attained by treading upon others is very perilous, and the position thus secured is not likely to be permanent. On the contrary, let her defend, if defence be needed, and the opportunity offers, the reputation of a sister nurse; possibly the minds of the assailants may be so prejudiced that no light of truth can penetrate them, and then let her wait until the clouds roll by, lest her fate be that of those who cast pearls before swine.

Position in the Family, of the Nurse.—In some families the nurse will hardly know whether she is fish, flesh or fowl, and the families themselves will labor under the same distressing ignorance. Some regard her as a friend in need, and treat her with the utmost kindness and courtesy; others think her a sort of higher domestic, subject to their orders, instead of having an empire of her own, obeying only the directions of the physician. Some will expect her temporarily to take charge of the house, look after domestic matters, possibly even spend odd minutes in the

refreshing labors of a seamstress. Some will have her eat with the family, or at the family table, and others consign her to the kitchen, though *Punch* says "Gamps and Prigs never demeaned themselves by taking their meals in the kitchen." If the nurse does not receive the considerate treatment to which she is entitled, the failure oftener arises from ignorance than from intelligent purpose. There are many kinds of people and of places in our world, and the nurse ought to be one of the most flexible of characters in order to adapt herself to the various conditions in which she is placed. Let her be conciliating and kind, not obsequious and sycophantic; let her by her own dignity of character and just conduct secure not only the respectful, but considerate treatment to which her office entitles her. She will refuse burdens and cares that do not justly belong to her, unless some emergency requires her to bear them, or her own kindness of heart dictates she should.

Silence as to Family Affairs.—The nurse ought to know the value of silence, so that the affairs of the lying-in room never become by word of hers the talk of the kitchen or of the neighborhood. Nay, more, let her seek no knowledge of family affairs, but let her rather refuse it, so that ignorance, if no higher influence, may secure her silence in regard to possible family discords and unhappiness

It would be a blessed thing if all households were pictures of paradise, where peace and love reigned supreme. But sometimes there is a skeleton in the house, and if ever the concealing closet is opened to the nurse, that revelation ought to be a perpetual secret. There is an Eastern tale to the effect that a man, leaving the palace one day, was asked, "How does the Sultan?" and immediately replied, "The Sultan sleeps." "In one hour from that time the rash informer was exiled from Turkey, and told he had just escaped the bowstring, because he had dared to tell the secrets of the Sultan's palace to the world."

Visits of the Clergy to the Sick.—There is one other important matter relating to the moral conduct of the nurse, occurring, however, only exceptionally, still more exceptionally prior to labor, belonging, too, not exclusively to the obstetric, but also to the medical and surgical nurse, upon which a word ought to be said. Now and again the patient will be in imminent peril, or even death be inevitable. The question may be asked by her, or by her friends, as to having the spiritual adviser called. This question is usually addressed to, and answered by the physician, but sometimes the nurse's advice will be asked, or she may have the decision resting solely upon her. What is to be her answer? Speaking from my own observa-

tion, both of Protestant and of Catholic clergymen, I believe no evil comes, but rather blessing, from the kind counsel and fervent prayers of a wise spiritual adviser; often a sweet calm, a peaceful resignation and a sublime trust are born of these ministries. God forbid that any of us, sheltering behind the common excuse that such visit will make the patient "nervous," "excite her too much," thus injuring her bodily state, should dare to run the risk of interposing, possibly, at some time, between an immortal soul and eternal happiness.

Premonitions of Labor.—Resuming the consideration of the duties of the nurse prior to labor, she ought to be able to tell the patient, if the physician has not done this, the symptoms which herald the coming of labor. Among these are change of form of the abdomen, swelling of the external organs with increased mucous discharge, greater irritability of the bladder, possibly of the rectum, too, and probably there will be some noted restlessness and nervousness; these last, just as certain atmospheric conditions precede the summer storm and predict its advent, are observed in many of our domestic animals when parturition is at hand.

A change in the abdominal form, variously called "falling of the abdomen," "settling of the womb,"

etc., occurs in the majority of primigravidæ some days, usually about two weeks before labor begins. This change is caused by the descent of that part of the child which is in the lower part of the uterus into the pelvic cavity; it is the head of the child, still enclosed of course within the uterus, which thus descends. The fact is favorable, for it is then known that the presentation, that which comes first in labor, is favorable, and that the pelvic cavity is sufficiently capacious. The cause of the descent is the resistance of the abdominal muscles and other tissues of the abdominal wall to any more stretching; but the ovum, that is the fœtal sac and contents, including of course the fœtus, which is the most important part, requires more room, and finds it by the lower portion of the uterus enclosing the fœtal head being pressed into the pelvic cavity, this pressure being exerted partly by the abdominal muscles, and partly by uterine contractions. The change referred to frequently occurs in the night, without the patient being conscious of the time or fact of occurrence; but when she rises in the morning she finds the upper portion of the womb lower than when she retired, and that it projects also farther in front, and her waist is smaller; there is less pressure upon the stomach, so that possibly she takes a larger quantity of food at one meal than she did, and the descent of the diaphragm being less

opposed, she can fill her lungs more completely, take a deeper inspiration than before. But while her stomach and chest are thus notably relieved, it is probable other discomforts arise; thus the greater forward pressure of the body of the womb, and the pelvic pressure of the lower portion of this organ may cause irritability of the bladder, so that she is compelled to urinate more frequently; in some cases pressure upon the rectum is so great that frequent desire to evacuate it annoys her; finally, the swelling and softening of the pelvic joints belonging to pregnancy may now be so increased that walking is rendered difficult.

The change in the abdominal form thus described does not usually occur in women who have previously borne children, because the relaxation of the abdominal wall is so great that the descent of the presenting part into the pelvic cavity is not compelled, but there is ample abdominal room for the development of the ovum. Nor does it invariably occur in those who are pregnant for the first time. Finally, this event may not happen until a few days, or even only a few hours before the beginning of labor.

In some instances, however, labor begins without premonitory symptoms, or at least these are not observed. Thus there may be premature rup-

ture of the amnial sac, either from accidental violence or because of preternatural thinness of the walls, or from excessive distention, and, following upon the escape of the amnial fluid, regular uterine contractions set in; in other instances the pregnant woman goes to bed feeling quite well, but is wakened in the night from sound sleep by "the pains" of childbirth.

Whenever uterine contractions are regular in recurrence, attended with suffering, the intervals which separate them gradually becoming shorter, and the distress increasing—especially, too, if there is an augmented discharge of mucus, still more if that mucus be stained with blood, thus making what is commonly known in the lying-in room as "a show"—labor has begun.

Preparation for Labor.—An entire bath, the water warm, and soap freely used, ought to be taken at the beginning of labor, and the patient after coming out of the bath should have clean clothing put on. This much she may do without the nurse's assistance, provided the nurse has not yet arrived.

The nurse ought, by reading and observation, to know the physiological phenomena of labor, and especially those commonly included under the terms, the three stages of labor; and knowing

them ought, if the patient has not been informed by her physician, or is without previous experience in childbirth, explain them to her. In the first or the uterine period of labor, dilatation of the mouth of the womb is accomplished, so that the presenting part of the child can escape from the womb. It is much longer than both the other stages or periods; although not giving rise to such intense suffering as the second period, it is more trying, wearies, worries, and seems to the inexperienced sufferer useless and vain; no voluntary effort on her part can assist or hasten the process, and such effort, too often advised by ignorant friends under the misguiding words to "do all she can to help herself," causes her to spend her strength for naught, and exhausts force which she will need by-and by for the real agony, for the strong struggle of labor. In the second period abdominal contractions assist the action of the uterus, and it ends in the complete delivery of the child; in this period voluntary effort, wisely made, is of great moment. The third period consists of the expulsion of the after-birth and membranes, an event usually accomplished within thirty minutes after the birth of the child.

The information which the intelligent nurse thus gives her charge will be most useful, help to take

away her fears and prevent her mistakes. A pathway upon which the light of knowledge shines ceases to be invested with imaginary dangers and difficulties.

The nurse's duties during and after labor will be considered in the next lecture.

LECTURE SECOND.

Sepsis, Antisepsis, Septicæmia.—The glory of recent obstetrics is, not the axis-traction forceps, and neither Porro's, nor the "improved" Cæsarean operation. Greater than any, greater than all of these in beneficent results is the discovery that by asepsis and antisepsis an almost absolute immunity from dangerous disease can be secured to women in childbed. The three names which are to be held in most distinction for their contributions to this important knowledge are Semmelweis, Pasteur, and Lister.

Once, and that not so long since they ceased, there were frequent fearful so-called epidemics of puerperal fever which decimated maternities, or even swept away more than one in ten of their inmates. It not unseldom happened that the unknown "puerperal poison" accompanied the doctor, the nurse, or the midwife in their private practice, and death, whom they did not see, walked by their side, and worked through their instrumentality. Now this awful disease is gradually becoming rare, as it once was frequent; the mortality in well-conducted maternities, though these may be used for clinical teaching, has fallen to about one-half of one

per cent; the temperature of the puerpera rarely becomes febrile, or this elevation is very brief—in a word, not only mortality, but also morbidity, has been marvellously lessened by the faithful and intelligent use of aseptic precautions, and of antiseptic means. And the day is surely coming, if not already present, when the occurrence of septicæmia in the puerpera will lead to the question: Who hath sinned, the doctor, or the nurse, that this woman is in peril, or perishes? Certainly there will be now and then a case of the disease, in regard to which careful and conscientious scrutiny of the entire history will fail to discover fault, sin of omission or of commission; but this will be altogether exceptional.

In this lecture upon your duties during and after labor, no words of greater importance can be spoken than asepsis, antisepsis, and septicæmia. Let us first understand what the words mean. Septicæmia was introduced into medical language by a distinguished French physician, Piorry; it is derived from two Greek words, *σηπω*, to make rotten or putrid, *σηπτικος*, making rotten or putrefying, and *αιμα*, the blood. By it he designated all changes in the blood from septic or putrid matter, without reference to the source of this matter, or the medium by which it entered. The nature of the infecting agent is not certainly known.

It has been called sepsine, but even Bergmann who upheld this view, admits that sepsine is the product of minute organisms called microbes; the creed most generally accepted is that without these organisms infection is impossible. They are at the limits of the vegetable and animal kingdom; a microbe is a single cell, has a globular or elongated form, straight or sinuous, and reproduces in most instances by transverse division, sometimes by germinative cells, or endogenous spores. The rapid multiplication of microbes is remarkable. Cohn has determined by accurate calculation that a coccus, a name given to several forms of microbes, meaning simply a cell, requiring an hour to divide into two, at the end of three days has become three trillions.

It is against this host of the almost infinitely small, and absolutely innumerable, characterized by such rapidity of reproduction, the obstetrician and the obstetric nurse must contend, guarding against their entrance into the body of the puerpera through the wounds which labor makes upon the inner surface of the uterus and in the birth-canal. If, notwithstanding all precautions, they do gain access, then the battle for life can only succeed by sustaining the unfortunate patient until they are eliminated or destroyed, and preventing their re-

inforcement by the entrance of fresh germs, or chemical products of their action.

Asepsis excludes, or endeavors to exclude, the germs of septic infection by means of perfect cleanliness—no infectious matter upon the person or upon her clothing, none upon the hands of nurse or of doctor, or upon anything brought in contact with her: soap and water are the most important agents of asepsis. Antisepsis directly kills disease germs, and the agents doing this are often called germicides; asepsis is the wall, the guard, the garrison; antisepsis the army destroying the enemy; the one defends, the other annihilates.

While asepsis is essential in obstetrics, antisepsis cannot be neglected. Doubtless, if the former were always perfect, the latter might be disregarded; but complete asepsis is not always, if ever, possible in obstetrics, and therefore antiseptic means ought to be employed.

Excellent, intelligent, and conscientious practitioners will tell of their having attended hundreds of labors without having seen a single case of puerperal fever, and yet they have not used antiseptics. Remember this is a mere negative argument, and therefore has less weight than it appears to have. There are many practitioners equally well qualified, and of equal experience with those referred to, who

have not had such immunity from puerperal fever among their clients; possibly, too, their own immunity may suddenly end, and their very next cases of confinement be infected. When the wonderful results obtained by the use of antiseptics in lying-in hospitals are so well established, and so well known, the obstetrician who condemns antiseptic midwifery, even though it be only indirectly or tacitly, while not sure to escape puerperal morbidity and mortality from septic infection in his own practice, is very sure to contribute to that morbidity and mortality in the practice of others.

Asepsis and Antisepsis in Practice.—So far as the duties of the obstetric nurse in protecting her patient from infection are concerned, reference has already been made to the employment of a bath and clean clothing at the beginning of labor; during this bath a thorough washing must be given with soap, and let it be followed by the free application of an antiseptic solution* to the external organs of generation. If the woman, during the latter part of her pregnancy, has had much leucorrhœa, especially if this has had, still has, an offensive odor, a free vaginal injection of a similar solution would be wisely used. Of course, the nurse is scrupulously cleanly, especially as to her hands, following

* See Appendix.

the Pharisaic practice of washing oft, and makes diligent use not only of soap, water, and nail-brush, but also of an antiseptic. But what shall the antiseptic be? The selection of those who believe in antiseptic obstetrics is usually carbolic acid, or corrosive sublimate, or both, the former being used more especially for the disinfection of instruments. Dr. Bernardy, of this city, has especially demonstrated the value of the biniodide of mercury, and urged it as a substitute for the corrosive chloride. I think it probable that creolin is preferable to any other antiseptic in obstetrics; it has a less unpleasant odor than carbolic acid, even if it be not positively agreeable. It does not, like the antiseptics that are generally used, make with water a colorless, but a milk-like solution; the drug therefore testifies both by odor and by color as to its presence, and hence a double protection against mistaking the solution. Finally, it is claimed to have four times the germicidal power of carbolic acid, and, using creolin, it is unnecessary to have two antiseptics, one for hands and the other for instruments.

The strength of the solution ordinarily employed will be one teaspoonful of creolin to a pint of water, that is, somewhat less than two per cent.

Condition of Bowels and Bladder.—Even though the patient's bowels have been recently

evacuated, it is better that she should have an enema of water, or of soap and water, so that they may be thoroughly washed out. Attention to the condition of the bladder should be given; if not freely evacuated spontaneously the catheter must be used. This instrument ought to be well cleaned before and after its use, and in the intervals of non-use has been directed to be kept in an antiseptic solution.* It would be better for the patient not to go to the water-closet during the first stage of labor, and certainly she must not be permitted to do this in the second stage, especially near its close.

The nurse should so arrange the patient's hair that it will require little attention the first few days after labor.

Food and Drink.—A woman in labor, unless this be protracted, rarely needs or desires food; nevertheless, if she is hungry, any simple, easily digested articles may be given in moderate quantity—it is better that she should take a small quantity of food at a time, and at short intervals, than much at once. Thirst is usually great, and the most refreshing drink will be cold water; all hot and stimulating drinks are, as a rule, positively forbidden in normal labor. Nausea and vomiting

* See Appendix.

occasionally occur in the first stage of labor, more especially near its close; this irritability of the stomach, unless associated with exhaustion, is not regarded as unfavorable, and indeed a common saying is that "sick labors are quick labors," in that greater relaxation of resisting parts is thought to result from the sickness.

Position in First Stage of Labor.—Usually it is not advisable for a woman to go to bed in the first stage of labor; a vertical, instead of a horizontal position of the body favors the descent of the child's head into the pelvic cavity, in case it has not already occurred. Nevertheless, if she be weak, or if hemorrhage occurs, the patient should be recumbent. So, too, toward the close of the first stage of labor, when the membranes usually rupture, it would be better for her to be lying down, for, standing or sitting at this time, gravity may invite such a sudden copious discharge of the amnial liquor that the flood possibly will carry down a part of the cord or one of the members, and thus the labor become complicated more or less seriously.

Premature Discharge of "the Waters."—If the amnial liquor is discharged early in, or before the beginning of labor, the labor is said to be "a dry" one, and usually it is then longer and more painful, so far as the first stage is concerned, for the

bag of waters, being entire, presses uniformly upon the mouth of the womb, mechanically causes common dilatation of all parts of the circle, and by this uniform pressure evokes stronger uterine action. Moreover, the part of the fœtus coming first cannot press equally upon all parts, and the pressure irregularly distributed is doubtless more painful.

Preparation of the Bed.—The preparation of the patient's bed is made by the nurse. The bed ought not to be of feathers nor of straw;* nevertheless, in some instances it may be necessary to use one or the other of these, and the nurse will first make it perfectly smooth and its contents evenly distributed, taking away all the hills and hollows. A mattress is much preferable. But upon bed or mattress let there be now placed a piece of rubber cloth or rubber; this occupies the middle third of the bed, thus extending well above where the patient's hips will rest; it ought to reach over the edge of the bed upon that side on which the patient will lie. Immediately above the rubber a blanket and then a sheet, each folded twice, are placed. There are now two ways of continuing the preparation of the bed, one of which may be called the old, the other the new; the former will be first de-

* See Appendix.

scribed. The under sheet is spread upon the bed, and then immediately above where the hips will rest, folded transversely; the lower fold is thrown over the upper, so that the entire sheet is placed so that it will not become soiled or wet during labor; delivery being completed, and the external organs properly cleansed, washed, and an antiseptic solution used, the folded half is drawn down under the patient and to the foot of the bed. The method, however, now generally employed is, after the rubber has been put in place, the under sheet covers it completely and occupies its usual position. Then a second piece of rubber is put over it, and above this a folded blanket or sheet, or both; all these are removed after the labor ends. It is not uncommon to fasten a sheet folded diagonally, or a roller towel, to the bed-post nearest the patient's feet, and she uses this to pull upon during "a pain." Instead of blanket and sheet, suitably folded, to receive the discharges from the uterus—amnial fluid, blood, etc.—in some parts of the country a sack of fresh bran is used for this purpose, and the practice is not to be condemned.

The Patient's Clothing.—The patient's clothing will usually be stockings, chemise and night-dress, and a wrapper worn while she is up; the chemise and night-dress must, when she goes to bed, be drawn up to her waist, so that they are saved from

all soiling and wetting; after the labor these garments are replaced. Moreover, there will be pinned around her hips a suitably folded sheet; this is much preferable to the flannel skirt, or any other petticoat that one sometimes finds in use at this time, for such a garment, requiring in its removal to be drawn down the entire length of the lower limbs, must soil them, while the sheet, once unpinned, can be immediately removed without such accident occurring.

Obstetric Examination.—The nurse will explain to the patient, if a primipara, the necessity for an "examination" by the physician, and at the proper time place her in suitable position, on her side or upon her back, the lower limbs being drawn up; the side position will probably be preferred by the patient, but in many instances the physician will wish her afterward to turn upon her back, for several reasons, the chief of which is that often, while using one or two fingers of one hand in the internal examination, he desires to use the other hand for external examination to confirm or to assist the other exploration.

The nurse has ready for the physician soap, warm water, nail-brush and towel; after thorough use of the soap, water and brush, he washes his hands in an antiseptic solution, one part of corrosive sublimate to 2000 of water, for example, or a solu-

tion of creolin, one teaspoonful to a pint of water. It is also usual to have some antiseptic ointment, with which he anoints the examining finger or fingers, carbolized cosmoline, for example; but if, without drying the hand, it is used immediately after being dipped in an antiseptic solution, especially that of creolin, no ointment is needed, if the practitioner would only always so believe.

Scissors and Cord.—The nurse is allowed that which is denied to most women nowadays, at least when clad in fashionable attire—an accessible and useful pocket. How often such women have to walk the streets holding in front of them that which seems their earthly treasure, the pocket-book, a pocket-book now, because it is never carried in the pocket! How changed from that object which fable tells the cruel Constantine saw upon the sky, a representation of the Cross, beneath which was the legend, *In hoc signo vinces.* The object is indeed changed in the case of these women; now it is cash instead of cross, and the legend which one might justly imagine should belong to the public display of this emblem of power would be, *In hoc signo vinco,*—"In this sign I conquer." If I urge the importance of the pocket, it is but an echo of Southey's belief, who said, "Now, of all the inventions of the tailor, who is, of all artists, the most inventive, I hold the pocket to be the most commodious, and, saving the

fig-leaf, the most indispensable." Well, the nurse generally has in her dress, and apron, pockets, not a single mere minimum receptacle so-called, remote and retired, which is sometimes crowded with a pocket-handkerchief, but pockets that are readily accessible and capacious, and therefore useful. Among the professional articles which may well find place in her pocket will be scissors, better that the ends of the blades be blunt, and material for tying the umbilical cord. While silk braid, twisted silk or hemp thread, tape, etc., are used for ligating the cord, I believe the best is Chinese silk, such as is used for tying the pedicle in an ovariotomy, or after the removal of the uterine appendages; with this the knot can be readily tied so as to thoroughly constrict the vessels of the cord. There is no danger of the silk cutting through the cord, nor of its cutting the fingers of the physician when he is tying the knot.

"Receiver," Bandage, etc.—The nurse has a "receiver" ready; it is usually a small blanket, or it may be a shawl or a flannel skirt, made warm as the time of birth approaches. She also sees that a bandage for the mother, safety pins, needle and thread, towels, napkins, and whatever she may need in washing the baby, such as basin or small bath, soft rags, soap, etc., whatever she needs in dressing it and in caring for the stump of the cord,

and hot and cold water, are at hand, or can be instantly had.

Temperature of Room. Bed-covering.—She will observe the temperature of the room, which in winter ought to be about 70°. The patient will need but little covering when in bed, for her temperature is somewhat greater than normal as a result of the labor; bluntly expressing a truth, there is vastly more danger of a woman taking dirt than of "taking cold" during labor. A single sheet, a blanket and a counterpane, will probably be all she really needs or will consent to have, even in cold weather.

Encouraging the Patient, and Exclusion of Persons not Needed.—The nurse, by a cheerful countenance and kind words, will encourage her patient. Though some women prefer silence during their labor, yet with the most at least occasional cheerful conversation will do something towards momentarily diverting their minds from thoughts of suffering. The conversation, if any be had, must be cheerful, not doleful; rainbows do not reveal themselves in the room of travail; but at least let no raven voice be heard there. This room is not an exhibition hall, and therefore only those actually needed and desired by the sufferer should be permitted in it; the nurse, knowing the sympathies and antipathies of her patient better than any one

else does, can best regulate this matter. Some women desire their husbands to be present, while others, for the time, would prefer that they were in Jupiter, or some other remote part of the universe. There are, too, husbands who ought to be excluded, some few because of their utter heartlessness, more because of their unconcealed strong sympathy and great anxiety, thus unintentionally adding to the wife's suffering and fear, and still a few who embarrass the nurse or doctor by unasked, unneeded advice.

Duration of Labor.—The patient will sometimes anxiously ask, when the labor will end? In general the travail of a primipara is from twelve to sixteen hours, though it may be prolonged to twenty-four, sometimes even be still longer, without risk to mother or child; if the patient has previously and recently borne a child, the time of labor is six to eight hours. The first stage is usually twice as long as the combined second and third. The nurse must beware of attempting the rôle of a prophet, and giving positive answer to the question; for her desire and sympathy will lead her to prophesy smooth things, making an encouraging promise as to the speedy end of the suffering, and when the promise is not fulfilled, the poor patient is liable to lose heart and hope, confidence and courage. It is always better when we

are ignorant to confess our ignorance than to assume knowledge; a lie is a monstrous thing, and lying to the sick or the dying is a great crime, no matter who commits it. We walk in the darkness, darkness so thick that we may not be able to see the milestones, or the distant light that waits to welcome us; only let us know that we are in the right road, then we also know every step brings us nearer home. In like manner of the parturient, and so we may tell her. This much, however, is known even to the unprofessional observer; the final pains, so strong and frequent, tell that the agony is nearly over, victory, concluding and crowning the strife, is at hand.

Suffering of Labor. Use of Anæsthetics.— Undoubtedly the suffering of labor is in the majority of cases great, very great. Yet pain, physical or mental, is an imponderable and an immeasurable: we have no means of knowing its relative or absolute severity. As the heart knoweth its own bitterness, so each woman knows her own sufferings in childbirth. The sensibility to pain, and the power of enduring it depend upon original organization, habit, and energy of will. The Stoics, said the wise man, can be happy in the bull of Phalaris, a brazen bull heated to the fierceness of furnace heat. Plutarch, telling of the Lacedæmonian boys who were taught to steal, but also to conceal their

theft, added: "So seriously did the Lacedæmonian children go about their stealing, that a youth, having stolen a young fox, and hid it under his coat, suffered it to tear his very bowels with its teeth and claws, and died upon the place rather than let it be seen." Hardly a man in these days would in silence submit to the one ordeal, hardly a boy to the other. You have read the story of that heroic Roman wife who gave no whisper of a groan in all the suffering of labor lest she might reveal the place of her husband's concealment, her love for him was so great. Montaigne has spoken of her as "that fair and noble wife of Sabinus, a patrician of Rome, for another's interest, alone, without help, without crying out, or so much as a groan, endured the bearing of twins."

Let us not conclude from this incident that all women who bear children could, if they would, suffer in silence: we would also be equally far from the truth, were we to believe that severity of suffering is indicated by the degree of manifestation in expression, in movement, in groan and clamor. Though the pain of childbirth is physiological, this the only function of the body the exercise of which causes suffering, it does not follow that no means should be used to mitigate it, and that it may not by its severity bring peril. In ancient Rome prospective mothers, during the feast of the Lupercalia,

held out their hands to be rudely struck with leather lashes, thinking thereby the sufferings of childbirth would be prevented. Why mention all other vain means—such as the eagle stone fastened to the thigh, or feathers from an eagle's wing to the sole of the foot, anointing the umbilicus with the fat of the viper or with the bile of an eel, placing upon the abdomen a calculus passed by some victim of stone, or the pulverized hoof of a donkey, or applying to the loins the nest of a swallow dissolved in oil, et cetera—that have been used in the vain search for means to lessen the pain of labor. It was not until the year 1847 that the late Sir James Y. Simpson proved that sulphuric ether could be given by inhalation for the relief of the pains of childbirth, and the day of woman's partial redemption from primeval curse came. However, the administration of an anæsthetic in labor, is a question for the medical attendant, not for the nurse; nevertheless, let me here say that I believe it is only in quite exceptional cases such relief cannot be wisely, safely, and usefully given.

Position during Second Stage of Labor. Attentions of the Nurse.—During the second stage of labor the patient is lying either upon her side, usually the left, or upon her back; in this country the latter position is the more common. The side position lessens the liability to tearing the perineum,

but if a woman is upon her back greater voluntary effort can be made, assisting uterine contraction, for then body and limbs are more certainly fixed, made rigid in position, and hence no force is lost by being transmitted through a flexible rod, and, moreover, and mainly, she can then take a fuller inspiration, thus depressing the diaphragm more and lessening the abdominal cavity, so that the contraction of the abdominal muscles acts with more force upon the uterine contents. Hence, during at least the greater part of this stage of labor, the dorsal position is to be preferred; towards its close, however, should perineal rupture be feared, let the patient be turned upon her side. Then the nurse places between the knees a small folded pillow or sheet rolled up, so as to secure separation of the thighs, which, by their approximation, would hinder the escape of the child.

Most women desire, during a pain, to press upon some firm resistance with their feet, and to pull with their hands, grasping something that does not yield; this may be accomplished by having the sheet or towel fastened at the foot of the bed as I have mentioned, and interposing between the feet and the footboard a stool or a box. But a better way, I believe, is for two persons to sit facing the patient, one on each side; she has the thighs slightly flexed, and the legs nearly at a right angle

to them; now when a pain comes let her grasp one of the hands of each assistant, while their other hands are applied to the front surface of her legs. These assistants are not to pull or to push, but simply resist her pulling and pushing. The patient is to be taught—for she must "learn to labor," oftentimes, too, "to wait"—that the longer she holds her breath during "a pain," the more effective it will be, for, taking frequent inspirations, the force is injuriously divided, broken into fractions, which are then not as efficient as the unit they compose. Further, her body ought to have a fixed position at this time, the head well inclined to the chest.

If a woman has finger rings that are at all tight, they should be removed at the beginning of labor, for the fingers inevitably swell, and hence injurious pressure may be caused by these ornaments.

The nurse will have at hand cold water, if the patient is thirsty, as she generally is; bathing her face from time to time with cool water is often grateful and refreshing to her. During the intervals between the pains the patient should be advised to rest as quietly as possible; peradventure she may get little snatches of sleep, saving and restoring strength. Indeed, one of the great blessings, as I believe, of obstetric anæsthesia is the usually following perfect calm after uterine and voluntary action, though the anæsthetic is then withdrawn.

The nurse, from time to time, removes wet and soiled napkins, replacing them by dry and clean ones; such attentions comfort the patient in some degree, are one of the means of guarding her against infection, and are always appreciated by the doctor. Cramps in one of the lower limbs are not uncommon, and are best relieved by brisk rubbing the affected part and straightening the limb. When the child's head presses strongly upon the rectum, the patient may think she needs to have an evacuation, and will insist upon getting up for that purpose; she may refrain voluntary effort from the fear that there may be a discharge from the bowels into the bed. But if the second stage is near its end her getting up is forbidden, and a bed-pan, or simply cloths, used; very frequently the need is not real, but imaginary.

Delivery of Child and Placenta by the Nurse, in the Absence of the Doctor.—Presuming the doctor to be present, he, of course, attends to all the details in delivering the child; but if he has not arrived, then the nurse must take this duty. Supposing that the duration of the labor, the frequency and the force of uterine contractions and abdominal efforts, and the suffering of the patient, indicate the rapidly coming end, the nurse will have the woman turn upon her side—the reference is made to a primipara in whom danger of tearing the perineum

is great—and finding that during "a pain" the perineum bulges outward, and that part of the head protrudes from the vulvar opening, receding when the pain ceases, she will now endeavor to guide the head, by pressure during a pain upon the perineum with one hand, and grasping the head with the other hand, in the axis of the vulvar ring, and even hold it back until that ring is sufficiently stretched to permit its escape without serious injury. The head emerging is received by her hand, in which it rests; she immediately passes one or two fingers of the other hand to the neck of the child, to ascertain if it is encircled by the cord—such encircling may be once or more; finding a loop round the child's neck, she at once, but without haste or violence, draws upon the cord at that portion which yields more readily, until the loop is long enough to be slipped over the child's head; if she cannot get so large a loop, it is only exceptionally that it will not go over the shoulders, which in a very few minutes follow the head. A new utero-abdominal effort occurs two or three minutes after the expulsion of the head, and she finds the infant's head giving a quarter rotation, so that the face which looked toward the perineum—of course I am speaking of usual cases—now looks toward the inside of one or the other of the mother's thighs; the shoulders are expelled almost immediately after, and the

rest of the body soon follows. Let her not, unless some emergency compels instant delivery, draw the child out as soon as the chest is delivered, but leave its complete expulsion to nature. As soon as the head is born, she should direct an intelligent assistant, if such be present, but better obedient ignorance than no help, to place a hand upon the patient's abdomen directly over the uterus; the hand not flat, but the fingers slightly flexed upon the palm, so that a concave surface which will adapt itself to the convexity of the womb is made, and then by the hand thus placed follow down the uterus as it lessens in size with the complete expulsion of the child: a proper use of the hand at this time does much to secure firm uterine contraction.

The infant when born should be placed upon its side near the edge of the bed, so that access of fresh air is obtained; care must be taken that there is no stretching of the umbilical cord. In most cases the child breathes freely and cries vigorously; if it does not, simply striking the chest with the end of a towel or napkin wrung out of cold water, or dashing a few teaspoonfuls of cold water upon the chest, quick friction of the surface, or suddenly changing the child's position, will usually be the only means required to insure free respiration. Ten minutes may thus pass, the circulation in the umbilical cord has ceased or become quite feeble

and then the cord is to be tied, two ligatures being used, the first being placed two inches or less from the umbilicus, and the second an inch at least beyond the first; each ligature should be tied securely, especially the one nearest the child, and this can be very readily done with the Chinese silk that has been advised.

After dividing the cord between the ligatures wipe away all blood from its fœtal end, and watch for a minute to see if any oozes out, and if there does apply another ligature. The child is handed to an attendant and the nurse assumes the care of the mother. Placing her hand upon the woman's abdomen she feels very distinctly the contracted womb, and by its size and firmness she judges whether the placenta has been detached, and partially or completely expelled into the vagina; if the uterus makes a round, hard body just above the pubes, about the size and almost the hardness of a croquet ball, then it is almost certain the placenta is no longer within it. The placenta is, in the majority of cases, spontaneously expelled within twenty or thirty minutes after the delivery of the child, sometimes not more than ten or five minutes intervene. Of course, if the placenta be in the vagina, its removal is a very simple thing. But suppose that by the size and the want of rigid contraction of the uterus, and by there hav-

ing been no "pains," the placenta be still in the uterus; if there be no unusual flow of blood, wait, still, however, keeping the hand upon the uterus as a sentinel to warn if uterine relaxation occurs, and a messenger to inform of uterine contraction, and when either occurs, by suitable compression of the uterus endeavor to counteract the one and to assist the other. Until the placenta is expelled the sentinel hand is applied to the uterus through the abdominal wall, nor even then should it be removed if the uterus be not firmly contracted; indeed, in all cases moderate manual compression of the womb may be wisely continued until the bandage is applied.

If the delivery of the child took place with the patient on her side, she had better be turned on her back before the expulsion of the placenta. A single pillow or the bolster will raise her head sufficiently, and if she be at all faint, better remove even that, so that her head rests directly upon the mattress.

Removal of Soiled Cloths, Bathing and Bandaging.—Supposing the last stage of labor, that is, the delivery of the placenta ended, the nurse's next duties are to remove soiled cloths, bathe the external sexual organs with a warm antiseptic solution, and wash out the vagina with a similar preparation —my preference for a solution of creolin, one tea-

spoonful to a pint of water, has previously been stated. Sponges ought not to be used in this or subsequent washing of these parts, but old muslin or linen rags, or jute, and whatever material is used should afterward be burned. If the nurse discovers any tears, the physician's attention may be quietly called to the fact—most probably he will ask information upon this point, and desire to examine the condition.

The bandage is now to be applied. This is of firm material, unbleached muslin, for example; it should be eighteen inches wide, and long enough to somewhat more than encircle the abdomen, so that it can be readily pinned. In applying it first roll up the bandage one-half its length, then carry this roll under the back, including the hips, when it is to be unrolled and made perfectly smooth, the ends crossing each other over the abdomen, and pinned—the pinning is usually directed to be begun below, but, as taught by Warrington, I think it best to begin above. Some place a napkin directly over the uterus, this napkin folded so as to make a compress, which is covered and kept in place by the bandage; the compress is probably useless. An antiseptic napkin, or pad, is now applied over the vulva; this is designed to absorb the discharge that comes from the uterus, and during the first twenty-four hours the flow being considerable, probably

ten or twelve napkins will be required; frequent changes are necessary for comfort, for cleanliness, and for safety. The chemise and night dress, and the folded half sheet, if this method of arranging the bed has been followed, are drawn down, and the patient given an opportunity to have that rest she so greatly needs. Nevertheless, some food may be taken before this rest, if she desires or needs it.

Raising the Hips for Removal of Soiled Bed-clothes, etc.—I will illustrate with the obstetric phantom which has been brought before you to-day, a simple method, so greatly needed, for raising the hips in the removal of soiled cloths, applying the bandage, arranging the clothing and the bed clothing under the patient. This method is available in all cases unless the patient be of unusual weight. The patient is lying upon her back, the thighs moderately flexed and the legs nearly at a right angle to them; the nurse, if she be strong enough, places one arm extended beneath the patient's knees, and the other directly over the legs, and thus has perfect command over the lower limbs; she can now, without great difficulty, thus lift the hips high enough to make the changes that have been mentioned.

Washing the Infant.—The mother's comfort having been secured, the nurse's attention is turned

to the child. She places the infant, still wrapped in "the receiver," upon her lap, which is protected by having first put upon it a flannel apron or small folded blanket. She has at hand a cup of cool water and a soft linen or muslin rag; the rag is dipped in the water, her finger wrapped with it and thus used to wash out the child's mouth, making it clean from any impurities that have accidentally got in during birth, and wiping away any collection of mucus. The child is now to be washed, and the nurse has ready a small bath or large basin, containing water at a temperature of 90° or 95°, olive oil or some similar substance for anointing the surface of the child, a piece of soft flannel rather than a sponge, and fine soap. It is a curious fact that the Spartan infants were not washed in water but in wine, as the following quotation from Plutarch shows: "The women did not bathe the new-born children with water, as is the custom in all other countries, but with wine, to prove the temper and complexion of their bodies; from a notion they had that epileptic and weakly children faint and waste away upon their being thus bathed, while, on the contrary, those of a firm and vigorous habit acquire firmness and get a temper by it, like steel." It is not, however, so marvelous that wine was used by a Pagan people in bathing the new-born, as that it or any other element than water has been employed

by some Christian sects in baptism.* A reference to this latter use of wine is, in a Christmas carol, founded upon a scene in one of the Coventry Plays, a carol which Home, in his work entitled, "Ancient Mysteries Revealed," London, 1823, states was sung in London and other parts of England in his day. The carol is so simple and so musical it is well worth reading; the last verse contains the allusion spoken of.

"He neither shall be christen'd
In white wine nor in red,
But with the spring water
With which we were christened."

Returning from this digression, it is better that the eyelids and parts adjacent be washed simply with warm water, no soap being used lest the soapy water should come upon the eyes and cause inflammation. The head may next be washed, soap being employed, and after the washing, well-dried with a soft towel or other suitable material. Next, the nurse applies to those parts of the child wherever

* The following passage in Blunt's Dictionary of Doctrinal and Historical Theology seems to allude to such baptism as having been done by some: "Water is indispensable as the matter of baptism; and the sacrament, if administered in any other liquid, as wine or milk, would be invalid." This statement is fortified by a quotation from St. Thomas Aquinas.

the secretion of the fat glands, the cheese-like varnish is collected, the oil or lard which has been prepared, or ointment, gently rubbing it upon the surfaces, for by this means its ready detachment is secured. The nurse then dips the child in the bath, the head only remaining out of the water, keeping it there for a minute or two. Some nurses make the water, before immersing the child, a sort of soapsuds by stirring it with a cake of soap. After the bath the child is replaced upon the nurse's lap, and with flannel, soap and water she thoroughly washes all parts of the child and dries them. Some, after this washing and before the drying, have the bath or basin filled with clean water and again immerse the child. It is customary to dust the body with powdered starch—the so-called toilet powders have starch as their essential part—but this is unnecessary if the drying has been well done; as a substitute for starch some advise talc, and a very good mixture of talc and magnesia is sold in the shops under the name of talcine.

Bathing the baby, of course, is done in a warm room and in a warm place by the register or stove, or in front of an open fire. Until the stump of the cord falls off, it is not again put into a bath or basin, but simply given a daily sponge bath.

Dressing the Cord.—Next comes dressing the umbilical cord. The time-hallowed method is to

have a square piece of old linen rag, cut a hole in the centre, through which the stump of the umbilical cord is to be passed; the under surface of the rag has been scorched, and then smeared with mutton suet. The rag is now laid upon the child's abdomen, the remains of the cord projecting through the hole that has been made, then the rag is folded transversely, including between its folds the cord, next, the folding is from side to side, and the cord is completely wrapped up in it. Another way is simply to wrap the cord up in some antiseptic cotton; this method has been criticised on the ground that the cord dries more slowly, and hence delay in its detachment. A better way is to have a small, soft piece of rag, and with this seize the cord between the thumb and finger just below where the ligature has been placed; next cut off the ligated part, and squeeze out upon the rag all of the jelly-like substance of which so much of its mass is composed. The effect is that its bulk is much reduced, and that which remains is limp as a ribbon. Now apply a new ligature—the pressure of the thumb and finger has restrained all bleeding—and wrap the cord three or four times with a thin bandage (an antiseptic gauze may be employed), and, finally, secure the roller by a thin piece of cord, or in some other simple way. This method protects against possibly offensive odors,

contributes to the infant's comfort, and hastens the detachment of the cord.

After the cord is dressed and turned up toward the chest, the bandage is applied, securing it in place; this bandage should not be tight, and can best be secured by a few stitches. As much as possible, pins are not to be used in dressing a baby; a needle and thread and tapes can well replace them in almost all cases. The bandage is of no use after the cord has fallen off. I need not enter into the details of dressing an infant; the clothing should give the child no discomfort, and contribute to keeping it sufficiently warm. Many a poor infant cries because it has not been properly dressed, or because a pin is pricking it, or because it is cold; and too often this crying is attributed to colic, and wrong and injurious treatment necessarily follows.

Evacuations from Bowels and Bladder of Infant.—Passing urine and an evacuation from the bowels generally occur within a few hours after birth. Soiled diapers must be promptly removed, and not reapplied until well washed and thoroughly dried; the parts of the child that have been soiled are to be washed with soap and water, dried, and then powdered.

Applying Infant to Breast. Artificial Food.—Some would apply the child to the breast immediately after it has been washed and dressed, but

ordinarily it is better to wait until the mother has had a few hours' rest. The application may be repeated again in four or five hours, until the establishment of an abundant secretion of milk, which usually takes place on the third day; after that a nursing once in two hours should be the rule during the first few weeks; only, then, as well as afterward, let there be in the night an interval of abstinence for five or six hours, more especially in the mother's interest. The nurse will not waken a baby at a particular hour for nursing; as a rule, if it sleeps it does well, and it is not wise to disturb its rest. Early application of the child to the breast secures for it a fluid known as colostrum, which acts as a laxative; this application, too, makes nursing easier for both mother and child, by giving suitable form to the nipple. In most cases, no artificial nourishment is required in the two or three days before milk is abundantly secreted: in rare instances a little warm water sweetened with sugar may be given, or if there be great delay in the secretion of milk, a mixture of one part of cow's milk and two of water, sugar of milk being used to sweeten it, may be employed. But remember, the physician should be consulted in all cases before resorting to constant feeding of the baby.

Infant should not Sleep with the Mother.— The infant ought not to occupy the bed of the

mother except when nursing; let it have its own bed, either crib or cradle. There are many reasons for this rule, among which are, that with its head often covered by the bedclothes, when it is lying with the mother, it breathes an impure air; occupying such a place, there is danger of the mother in her sleep turning over on it, and it perishes; and, again, if the child be restless, suffering from minor or temporary distress, the mother frequently applies it to her breast, seeking to lull its pain by the diversion of taking food, and thus it is taught bad habits, and the mother is deprived of needed rest.

Falling Off of the Cord, and Dressing the Raw Surface.—The stump of the cord falls off in five to seven days, and the surface, left somewhat raw after its detachment, may be dressed with any simple ointment, such as oxide of zinc, cosmoline, etc., to which it is well to add some antiseptic, or it may be dusted with a mixture of salicylic acid one part, starch four parts.

Attentions to the Mother.—In regard to the nurse's attentions to the mother during the puerperal period, the most important things are rest, food, cleanliness. A moderately darkened room, perfect quiet, comfortable position and properly arranged personal and bed clothing, will be the most important concerns directly under the nurse's control to secure repose for her patient. The skin

of the puerpera is remarkably active, and, especially when she awakes after sleeping a short time, is covered with perspiration; now, while care is taken that no exposure to cold occurs to check this activity of sweat glands, let equal care be taken not to make it excessive by having the room hot, or by heavy bed-clothes. Visitors ought not to be admitted for at least a week, and the puerpera is to be carefully guarded against all mental excitement and worry.

Food.—It is generally advised that the patient have a very restricted diet the first few days of her lying-in. But the question of articles of food depends upon the individual condition, her desires, and her habits. If greatly exhausted, she needs beef tea, animal broths, milk, chocolate, and such nutritious solid food as her appetite craves and she can digest. Ordinarily, the first food given may be tea and toast, or milk toast, a cup of chocolate, well-boiled rice, etc. There is no objection to her having mutton or chicken broth, or oatmeal gruel. If she is getting on well, solid animal food, such as chicken, roast beef, or a mutton chop, may be taken, if desired, the third day, or even the second. The low diet formerly directed for the puerperal woman, under the notion that thereby fever was prevented, is not now usually enjoined by doctors;

such a diet hinders convalescence, and rather invites than averts disease.

Use of Catheter.—Retention of urine not uncommonly follows a difficult and prolonged labor, especially in case of a primipara. This retention does not result, as taught in one of the popular nurse's manuals, from paralysis of the urethra, but of the bladder, or in most cases, from great swelling of the urethra; the bladder not being sensitive to the presence of urine, no effort to empty it is invited, or the organ may have partially lost its contractile power, or the resistance from the swelled urethra cannot be overcome. The patient should be urged, in six or eight hours after labor, to try to empty the bladder, a warmed bed-pan being placed under her to receive the discharge; if she cannot succeed lying upon her back, on no account is she to be permitted to sit up in bed and try in this position to empty the bladder, lest dangerous bleeding from the womb occur; some, however, advise that she be helped upon her hands and knees for the purpose, but if she be very weak this is a violent change and trying posture. If the patient cannot urinate in twelve, or at most eighteen, hours after labor, the catheter must be used; the nurse—her hands and the instrument being dipped in an antiseptic solution first, and completely disinfected—

washes away with the creolin solution, for example, all secretions from about the urethral opening, lest some septic matter be carried by the instrument into the bladder, and a very troublesome inflammation result, then introduces the instrument. The catheter must be used twice or thrice in the twenty-four hours, as the rapidity of the secretion of urine or the discomfort of the patient may require; in most cases the bladder regains its power with the first evacuation of the bowels, which probably the doctor will direct to have made three days after labor; in some cases, however, the use of the catheter must be continued a week or longer.

Local and General Bathing.—For the first few days the nurse bathes the external parts twice a day with an antiseptic solution, but gives no vaginal injections unless directed by the physician, and this he will probably not do unless the lochial discharge becomes offensive. Washing the hands and face of the patient once or oftener daily will be done, but I imagine giving her an entire sponge bath every day, as advised by some, is rarely done, and is not necessary,—once in two or three days will usually be often enough for this attention. All soiled cloths or clothes, and discharges from uterus, bladder or bowel, must be promptly removed, and the air of the room thus and by suitable ventilation kept pure; of course, if a window be opened

for this ventilation the patient must have an additional cover to prevent her becoming chilled; but I am persuaded that there is far more danger to the puerpera from dirt than there is from cold, and that the dread poison of septic infection has too often been concealed under the term "taking cold."

The bandage is examined occasionally to see that it has not become wrinkled, or made into a cord instead of a band; a clean one may be put on daily, the old one being removed and washed.

Temperature of the Patient.—The temperature of the patient is taken morning and evening, and the record shown the doctor at his visit. It is not necessary for the nurse to inform the patient what her temperature is, and indeed, in some instances of abnormal elevation, she ought not to be told. In Mr. Tait's private hospital he has the nurses use Centigrade thermometers exclusively, and thus avoids giving any real information to patients, for though the nurse may tell them their temperature, they are no wiser after than before, and this is certainly in many cases quite advantageous. Probably puerperæ are peculiarly liable to abrupt increase of the body heat from mental impressions, such as great worry or grief. Just as there are emotional tempers, there are also emotional temperatures. Of course such elevations are fugitive, and are not regarded with any anxiety. Again

there may be sudden and great increase in the temperature from physical causes acting temporarily, which is also fugitive, and not important. I have seen a woman five days after labor, simply from the violent action of a cathartic, have her temperature suddenly elevated to 102°. In all cases of marked increase of temperature, the nurse had better use the thermometer not merely morning and evening, but also at intervals of three hours, so that she may know whether the elevation continues, increases or declines.

Time when the Patient may Leave her Bed.—It is usual for a woman to sit up the ninth day, and this popular rule has some scientific support in the fact that generally in nine days the uterus has so lessened in size that it has entered the pelvis. But a longer rest in bed is better for the majority of women; indeed, for those who are not strong and vigorous, sitting up should be deferred until eighteen or twenty days. Nevertheless, there can be no objection, the doctor's approval having been obtained, to the puerpera being transferred from the bed to the lounge, where she may recline during the day or part of it, after the first nine or ten days. If the red flow returns after having quite disappeared at the usual time, when the patient gets up, a return to bed is plainly indicated.

Occupation during Convalescence.—As convalescence progresses the puerpera may be allowed to read for a short time, or engage in any light occupation, such as a little sewing, while still in bed. At the end of three weeks, everything going on well, she begins to walk a little, but at first confines this exercise to her room. After four weeks she will probably be down stairs, gradually resuming her household duties, grateful to the nurse for her faithful services, it is to be hoped, and giving her adequate compensation, and grateful, too, for that which money cannot pay, the nurse's ever-living sympathy and ever-loving kindness.

APPENDIX.

After-pains.—Following a second and subsequent child-births, rarely after the first, contractions of the womb causing more or less suffering and known as after-pains, generally occur. These pains are more severe in women who have borne many children, especially if the intervals between the births have been short. They usually begin within an hour or two after the labor is over; they continue a few seconds, or one to two minutes, and may recur at irregular intervals, sometimes fifteen minutes, half an hour or longer; they are excited or increased when the infant nurses. In most instances their severity greatly abates, or they may have disappeared within twenty-four hours, but they are sometimes protracted to the second or third day; in some instances women have asserted that after-pains caused greater suffering than child-birth.

In case after-pains occur in the absence of the physician, and he has left no directions as to their treatment, the nurse can do somewhat for their relief by repeatedly applying two or three folds of a towel that has been wrung out of hot water or whiskey, and by gently rubbing the uterus.

Antiseptics.—As stated in the first lecture, the antiseptics that have been generally used in obstetrics are carbolic acid and corrosive sublimate; the strength of the solution of the former most employed is three per cent., and that of the latter 1 to 1000–5000 of water, the strongest solution being only used for rendering the hands aseptic, and the weakest for intra-uterine injections, while 1 to 2000 may be employed for vaginal injections and for bathing the external organs and for antiseptic izing napkins, or pads applied to the vulva for receiving the lochia. Nevertheless, I have seen mercurial poisoning in two instances follow injections into the vagina with a solution of the strength last mentioned, the injections being used twice a day; and I believe it would be better, if a solution of this strength is employed so frequently, to immediately follow it by washing out the vagina with water that has been boiled.

Creolin is a product of the distillation of coal, a dark, syrupy-looking fluid, making, when mixed with water in the proportion usually employed, 1–2 to 100, a milk-like compound; it was employed by Professor Winckel in the Munich Frauen Klinik last year, to the exclusion of all other antiseptics in midwifery practice. A 2 per cent. solution was used for cleansing the hands of physicians and nurses, for disinfecting catheters, for bathing the

external genitals and for vaginal injections; for intra-uterine injections the strength was 1 to 1.5 per cent. My friend, Dr. J. Clifton Edgar, of New York City, states that in sixty deliveries occurring during his term of service as one of the resident physicians of the Klinik, the results were quite as good as those had from corrosive sublimate. My own experience with creolin in obstetrics, though only employing it for a few months, is quite satisfactory. The solution of creolin testifies to its presence by appeal to two senses, sight and smell, and therefore there is much less danger of making mistakes than when a solution like carbolic acid, which is known only by odor, or that of corrosive sublimate, which is both odorless and colorless, is used. If an ointment be required for fingers or hand, or for instruments, an excellent one may be made by adding four per cent. of creolin to benzoated lard.

Antiseptic Napkins and Pads.—At the Maternity of the Philadelphia Hospital the napkins employed for the puerpera are, of course, first thoroughly washed, then they are dried, and after this dipped in a 1 to 2000 corrosive sublimate solution, and again dried before being used. At the Preston Retreat, which may be justly declared a model maternity, one of the best in the world, Dr. Joseph Price, who is in charge of the institution, employs antiseptic pads. The antiseptic pad is made of a

piece of thin, cheap cotton material, which has been antisepticized, and is about twenty-four inches square; it is first folded diagonally upon itself, as if the beginning of a cravat; next, there is laid upon its doubled surface a piece of waxed paper nine inches by three, upon this antiseptic jute, and finally a layer of antiseptic cotton above this. Then the muslin is so folded that it has something of a boat-shape, the cotton being exposed; a few coarse stitches secure the form and keep the cotton, jute and paper in place. When the pad is applied its ends are fastened to the bandage behind and before, and the cotton rests directly upon the vulval opening. The pad weighs about one ounce and a half, and can be made probably at an expense of about five cents; four pads will be needed the first twenty-four hours following labor; of course, after use the pad is burned.

Bed of the Puerpera.—In maternities straw beds are frequently employed. Certainly, such a bed has some advantages, for after being used, the emptied bed-tick can be put in boiling water and thoroughly washed, while the straw is burned; of course, only fresh and clean straw for refilling the bed-tick is used.

For protecting the under sheet and the bed of the puerpera there is placed beneath her a blanket twice folded on itself, which is then included be-

tween the double folds of a sheet; these must be removed whenever the sheet is in the least soiled, and clean blanket and sheet put in their place.

Breasts, Infant's, Care of. — Ordinarily, the breasts of the infant require no special attention; but sometimes, in both male and female, and probably more frequently in the robust than in the feeble, there occurs swelling of the breast, about the time the cord falls off, the organ becoming as large as a pigeon's egg, and a small quantity of milk is secreted: the secretion may continue ten or a dozen days, and then spontaneously disappears. In some instances the breast becomes inflamed, and the inflammation ends in the formation of matter; it is doubtful, however, if these results occur unless violence has been used in the useless effort, too often made by mother or nurse, to "squeeze out the milk." The only treatment ordinarily proper will be occasional bathing the breast with a little warm water.

Breasts, the Mother's, Care of.—As previously advised, early application of the infant to the breast is desirable, that is, after the mother has had a few hours' rest following delivery. If the right breast is to be used—as a rule, the infant takes the milk from only one breast at a nursing during the first few weeks—the mother turns upon her right side, partially supporting the infant's head

with her arm; in this position the nipple almost drops into the child's mouth, and there is no pressure upon its nose preventing the access of air, as there is if the child is laid upon the mother's chest while she is upon her back. Water sweetened with sugar may be put upon the nipple, and thus invite the child to nurse. After each nursing the nipple is to be washed with cold water, and if it is very tender it may once a day be lightly brushed with compound tincture of benzoin; but the nurse making this application must let the coating dry before covering the organ, and, especially, she must not, as some nurses do, apply a rag immediately after the benzoin has been used, for then the removal of the rag at the next nursing will cause pain, and contribute pretty surely to inflammation of the nipple. In the intervals of the nursing two or three folds of soft muslin or linen are laid upon each breast to protect them, and to absorb any discharge; these must be removed as soon as they become damp, either from perspiration or from the oozing of milk, fresh ones being put in their place. To keep the breasts hot by applying layers of cotton or of flannel, from the fear of "taking cold," does not comfort the patient nor avert danger.

If the breasts become very much swelled at the first secretion of milk, a properly applied bandage, or supporting them each by a silk handkerchief, the

ends being fastened round the neck, will frequently be beneficial. It would be better for the patient, preventing or lessening such excess of milk-making, to take for a day or two little fluid food, and to drink very little water.

Protection of the nipples from fissures and excoriations may further be sought by the daily application of a little cocoa butter or other non-irritating ointment, by not allowing the infant to keep the nipple for a long time in its mouth, alternately sucking and sleeping, and, if the nipples become very tender, by the early use of a nipple shield.

Catheter.—The Nelaton catheter I think the one most convenient, and while I have adopted the common statement that the instrument should be kept in an antiseptic solution in the intervals between its use, it seems to me this is a needless precaution ; if the instrument, both before and after its use, is thoroughly washed in a two per cent. solution of creolin, for example, it will be perfectly aseptic.

Colostrum.—This is the name given to the fluid found in the breasts the first two or three days of the puerperal period ; its chemical composition is almost the same as that of milk, the chief difference between the two fluids being in the relative proportions of the constituents. It acts as a laxative

to the infant, and therefore is needed for the purpose of purging off the meconium. This laxative action has been attributed by some to the larger quantity of salts it contains, but by others to its greater richness in glandular elements, which cause indigestion; the latter hypothesis seems the more probable.

Constipation. Colic.—An infant usually has one, two or three evacuations from its bowels every twenty-four hours, and if this is not the fact more or less suffering generally results from the failure, especially attacks of colic frequently occur. The nurse can do something toward overcoming this constant constipation by spending a few minutes each day in gentle massage of the child's abdomen; daily rubbing the abdomen with sweet oil is advised by some; for immediate relief the most common means is the familiar cone of soap; a suppository of soap and cocoa butter, or an injection of two teaspoonfuls of sweet oil, may be used where immediate relief is not required; when colic is present, the injection of warm water and soap is preferable. In addition to the last means stated for the relief of colic, a few teaspoonfuls of the warm infusion of anise, or fennel seed, or a few drops of the milk of asafœtida, may be given, and cloths wrung out of warm water applied to the abdomen. But let a nurse beware of quieting this or other

pain in the infant by whiskey or paregoric, or by "cordial" or "soothing syrup," or any other of the nostrums that are so often, and generally so injuriously, employed.

Convulsions, Puerperal.—Convulsions rarely occur during pregnancy, in labor or in the puerperal state, without premonitory symptoms, so that the physician has been using means to avert them, or possibly he may be present during the first attack. Should an attack come when he is absent, the nurse's duties are very simple, and chiefly negative. She will make no effort to restrain the violent movements of body or limbs of the patient, for such effort is foolish and futile; but she will endeavor to prevent the patient from injuring herself, and the chief injury is biting the tongue, an accident very liable to occur, and sometimes a very serious one. It is best prevented by means of a large napkin, which is so folded that it may be stretched across the open mouth, pressing the tongue within the jaws, if it has been thrust out, and keeping it from protruding until the convulsion is over.

Food for the Infant.—Nature intended that during the first months the infant should be nourished from the mother's breasts; but some mothers do not have sufficient or suitable milk, in rare cases the secretion fails entirely, and in still others malformation of the nipples, or general disease may

render maternal nursing impossible or unwise. A healthy wet-nurse, one whose milk agrees with the child, and who will be faithful in her duties, is the best substitute. But such wet-nurses are very difficult to obtain, and, therefore, it will most frequently be necessary in these emergencies to give artificial food. As an encouragement to this course I cannot do better than quote the words of my friend, Dr. Louis Starr, who in a recent volume * has said: "There can be no doubt, though the statement is a bold one and seemingly contrary to nature, that, taking the average, infants brought up by hand are better developed and enjoy more perfect health than those completely breast-fed." This statement, however, is only correct when the infants living upon human milk have not sufficient quantity or suitable quality. The following formulæ he commends as suitable in preparing artificial food for the first few weeks: quoting, I can give them warm endorsement from my own knowledge of their value.

"Diet during the first week:—

Cream,	2 teaspoonfuls
Whey, †	3 teaspoonfuls
Water (hot),	3 teaspoonfuls
Milk sugar,	¼ teaspoonful.

For each portion; to be given every two hours from 5 A.M. to 11 P.M., and in some cases once or twice at night, amounting to twelve fluidounces of fluid per diem.

* Hygiene of the Nursery. Philadelphia: P. Blakiston, Son & Co.

† Whey is made by adding three teaspoonfuls of wine of pepsin

"Diet from the second to the sixth week:—

Milk,	1 tablespoonful
Cream,	2 teaspoonfuls
Milk sugar,	¼ teaspoonful
Water,	2 tablespoonfuls.

For one portion; to be given every two hours from 5 A.M. to 11 P.M., amounting to seventeen fluidounces of flood per diem."

I am sure that the possession of these directions will be helpful to many an obstetric nurse, not only in those cases where the child must be exclusively hand-fed, but in the more numerous ones where the mother has so scanty a supply of milk, or this milk is of such inferior quality that the infant cries with hunger, this crying too often attributed to colic or to crossness, but which is very promptly charmed away by a few meals of food prepared as above directed supplementing the food obtained from the mother.

Hemorrhage, Uterine.—The only form of severe bleeding from the womb of which it is thought advisable to speak is that occurring after labor. This may happen at an interval of an hour or two, or some days after delivery. The nurse, of course, has the physician at once sent for, but, meantime, she endeavors to obviate in some degree the injurious consequences of the loss of blood by lowering

to a quart of warm fresh milk, and placing the mixture near the fire for two hours: the curd is then removed by straining through muslin.

the patient's head, taking away pillow and bolster, and raising the foot of the bed. She seeks to stop the flow by exciting the uterus to contract through friction and compression, by means of the hand upon the abdomen. If ergot be at hand, a teaspoonful of the fluid extract may be administered in water, if the patient be not suffering from sick stomach, and a copious hot water injection into the vagina may be given.

Lochia.—This term, applied first by Hippocrates to the discharge occurring after childbirth, is the plural of a Greek adjective signifying "of or belonging to childbirth." The lochia last usually from two to three weeks, and are at first quite red, consisting chiefly of blood; the quantity progressively diminishes, and after the first three days the red color gradually disappears, and the fluid becomes thinner and more watery. After seven or eight days it is paler, may be cream-like in consistence, or transparent, like melted glass or the uncooked white of an egg. Where strict attention to cleanliness and to the use of antiseptics is given, little or no odor of the discharge will be observed. The nurse ought to observe the quantity, the color, and especially the odor of the discharge, reporting at once to the physician if the latter becomes offensive, or if there are other deviations from the normal course.

It is not uncommon for the lochia to diminish, or even be absent for a few hours, during the establishment of the secretion of milk, and then the quantity is greater, for example, on the fourth than on the third day. While the usual duration of the flow is, as has been stated, two to three weeks, in some instances it stops at the end of a week; but such early cessation is never a cause of anxiety unless other symptoms are present; nevertheless, the physician should be informed of this occurrence.

Meconium.—This name is given to the first discharges from the infant's bowels, because of their resemblance in color and consistence to the juice of the poppy; they are viscid and brownish or greenish. The first discharge usually occurs within ten or twelve hours after birth, and is followed by others for four or five days, when the evacuations have become a light yellow. It would be proper for the nurse, in case the discharge did not appear within twenty-four hours after birth, and the infant was apparently suffering from the retention, to use a soap suppository or a rectal injection of warm water.

Septicæmia.—Although the correct etymological signification of the word septicæmia expresses the entrance of the infection into the blood, yet it is common to speak of puerperal septicæmia as including all cases of septic infection occurring in

puerperal women, no matter whether the poison gets access to the organism through venous or through lymphatic vessels. The disease will vary in its manifestations according to the avenue of entrance, the quantity of the poison, the susceptibility of the patient, and the promptness with which proper therapeutic means are employed, so that it may be mild or severe, brief or protracted. But underneath the various manifestations and forms, and the differing degrees of danger, lies this great truth, of such practical importance that it should be ever remembered by doctor and nurse, the disease is contagious, and the poison conveyed by unclean hands or instruments from one woman in whom the disease is mild, issuing in speedy recovery, to another puerpera, may prove in her grave and rapidly mortal.

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